

Remarks

Claims 1-3, 5, 8-10, 12, 15, and 17-23 are pending in this application. In an Office Action mailed February 23, 2007, the Examiner rejected claims 1-3, 8-10, 12, 15, 18, 19, 22, and 23 under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 5,822,184 to Rabinovitz (Rabinovitz). The Examiner rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovitz. The Examiner rejected claims 5 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovitz in view of U.S. Pat. No. 5,737,189 to Kammersgard. The Examiner rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovitz in view of U.S. Patent No. 6,272,573 to Coale *et al.* Applicants respectfully disagree with the Examiner's rejections.

Claim 1 provides a data storage system including at least one data storage canister. Each data storage canister includes a shell and a frame disposed within the shell, the frame extending in a lengthwise direction along the shell. A plurality of mounting points are disposed along the frame. Each mounting point is capable of accepting one module of uniform size. The mounting points are spaced such that mounted modules are mounted in a parallel, spaced apart manner. A connector system is operative to pass electrical signals through the shell. A power bus is interconnected to the connector system and is operative to deliver power to each module. A communication interconnect system is operative to transfer signals between each mounted module and the connector. A plurality of data storage modules are disposed within the shell. Each data storage module is mounted at one of the plurality of mounting points. Each data storage module is in electrical contact with the connector system, the power bus and the communication interconnect system.

The Examiner rejected claim 1 as anticipated by Rabinovitz. The Examiner identified Rabinovitz's housing 10 as Applicants' data storage canister. The Examiner's sole support for Applicants' shell, frame disposed within the shell, and mounting points is "figure 3." The Examiner failed to find any teaching whatsoever for Applicants' "connector system operative to pass electrical signals through the shell." Thus, the Examiner has failed to establish a *prima facie* case of anticipation.

As seen in Rabinovitz's Figure 3, Rabinovitz neither teaches nor fairly suggests Applicants' shell and frame disposed within the shell.

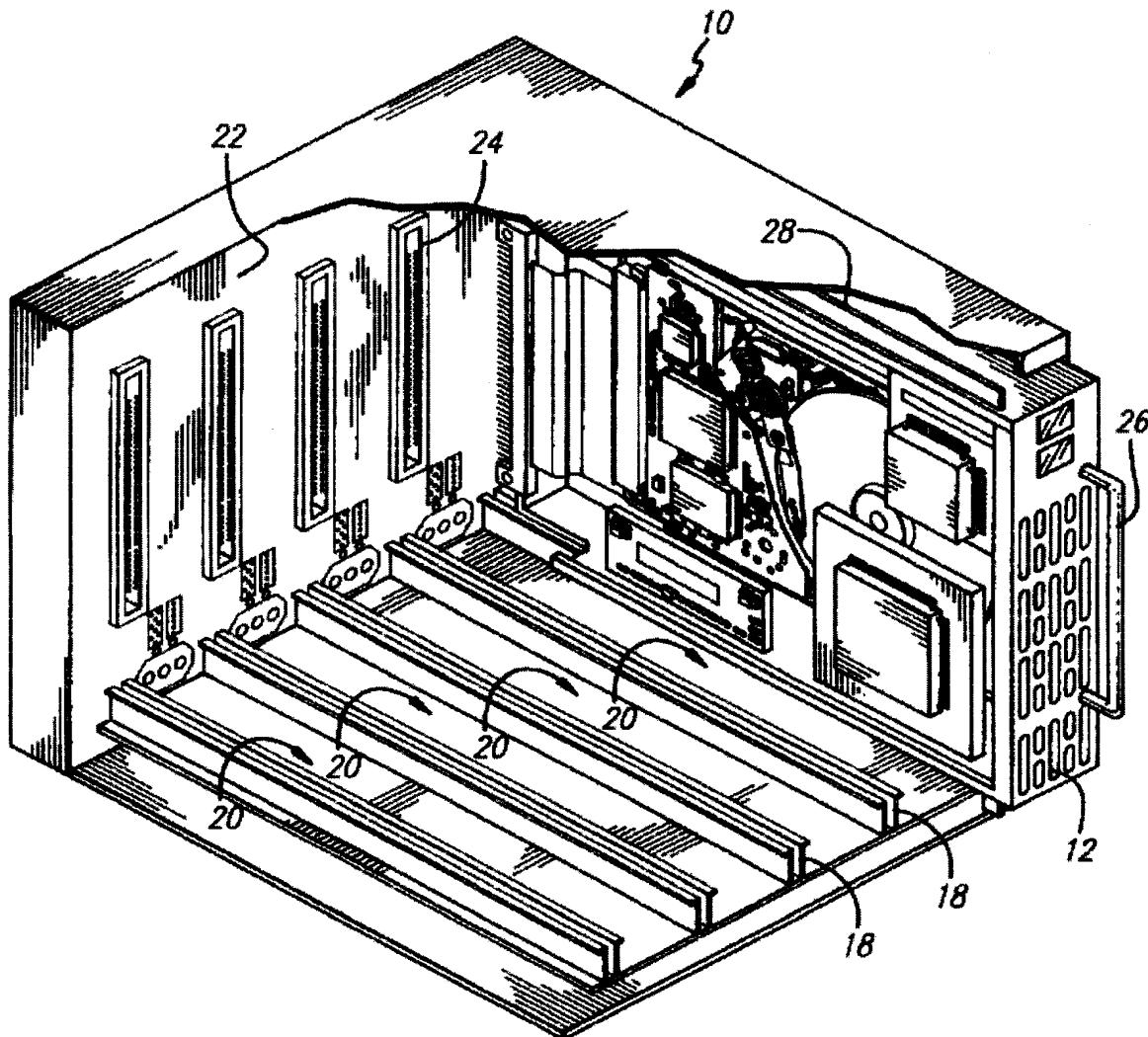


FIG. 3

As can be seen in Figure 3, Rabinovitz's housing does not have any structure corresponding to Applicants' "frame disposed within the shell, the frame extending in a lengthwise direction along the shell" as provided in claim 1. Claim 1 is not disclosed by Rabinovitz. Claims 2, 3, 5, 8-10, 12, 15, and 17-23, which depend from claim 1, are therefore also patentable.

Dependent claim 10 further provides that the frame includes at least one flexible cable. The Examiner asserted that claim 10 is anticipated by Rabinovitz, stating only that “Rabinovitz discloses the frame having a rear connector (figure 3) can be connected with a cable.” The mere fact that a cable could be connected does not mean that Rabinovitz teaches, or even suggests, such a cable. Claim 10 is patentable over Rabinovitz.

Dependent claim 15 further provides that at least one canister automatically recognizes capabilities of secondary packaging within the data storage system to which the canister is connected. The Examiner asserted that claim 15 is anticipated by Rabinovitz by referring to controller 44 in Figures 6a-6c and column 5, lines 36-44, as follows:

FIGS. 6(a), (b) and (c) show a variety of configurations for the disk drives. FIG. 6(a) provides a block diagram illustrating the network of the disk drives 12 within the housing 10 via bus 42 to a SMART, SCSI, or IDE controller preferably located in the computer. In most modern computers, such a controller 44 automatically determines the number of drives and the protocol necessary to access each drive.

Rabinovitz discloses a network of disk drives connected to a controller for a particular kind of disk drive. This neither teaches nor suggests recognizing secondary packaging capabilities.

Dependent claim 18 further provides that the data storage system forms a plurality of virtual volumes, each virtual volume having storage requirements different than the physical resources provided within a single canister. The Examiner’s sole support that claim 18 is taught by Rabinovitz is “figure 8.” Figure 8 is “a perspective view showing the modular data device assembly being inserted into an operative position in an expansion bay of a personal desktop computer.” (Rabinovitz, col. 3, ll. 51-53.) Rabinovitz makes no mention whatsoever of virtual volumes and, therefore, neither teaches nor suggests Applicants’ invention as expressed in claim 18.

Dependent claim 19 further provides that the at least one canister is a first plurality of canisters and a second plurality of canisters, each canister in the second plurality of canisters having at least one performance characteristic substantially different than the at least one corresponding performance characteristic in the first plurality of canisters, the data storage system operative to transfer data from at least one of the canisters in the first plurality

of canisters to at least one of the canisters in the second plurality of canisters. The Examiner asserts that claim 19 is disclosed by Rabinovitz without making any attempt to find a teaching or suggestion in Rabinovitz for transferring data between canisters having substantially different performance characteristics. Claim 19 is therefore patentable over Rabinovitz.

Dependent claim 22 further provides that data storage modules are dynamically allocated. The Examiner makes no attempt to find any teaching or suggestion in Rabinovitz for dynamically allocating data storage modules.

Dependent claim 23 further provides that at least one canister provides variable bandwidth access to data storage modules within the canister. Rabinovitz makes no mention of bandwidth whatsoever, let alone the variable bandwidth of Applicants' invention. Claim 23 is therefore patentable over Rabinovitz.

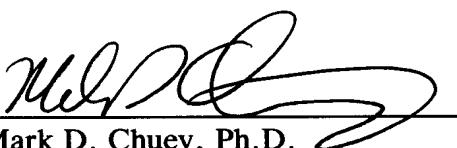
Claims 1-3, 5, 8-10, 12, 15, and 17-23 are pending in this application. Applicants believe these claims meet all substantive requirements for patentability and respectfully request that this case be passed to issuance. No fee is believed due by filing this paper. However, any fee due may be withdrawn from Deposit Account No. 19-4545 as specified in the Application Transmittal.

The Examiner is invited to contact the undersigned to discuss any aspect of this case.

Respectfully submitted,

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